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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,685	08/19/2003	Toshiyuki Sakuma	500.43055X00	2734

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MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.
1800 DIAGONAL ROAD
SUITE 370
ALEXANDRIA, VA 22314

EXAMINER

CHONG CRUZ, NADJA N

ART UNIT

PAPER NUMBER

4143

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/642,685

Applicant(s)

SAKUMA ET AL.

Examiner

NADJA CHONG CRUZ

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Status of Claims

1. This action is in reply to the application filed on 19 August 2003.
2. Claims 1 - 11 are currently pending and have been examined.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/642685, filed on 19 August 2003.
4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **Figure 3: reference character 232; Figure 7: reference characters 1904 and 1905; Figures 8, 17 and 23: reference character 1911; Figure 11: reference character 1715; Figures 12, 16 and 21: reference characters 1726, 1727 and 1728; Figures 13, 15 and 20: reference characters 1730a, 1730b, 1735 and 1736; Figures 19A and 19B: reference characters 1771, 1773, 1774, 1775, 1776, 1777 and 1779; Figures 22A and 22B: reference character 1829 and Figures 25 and 26: reference characters: 1851 and 1899.** Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the

changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claims 1, 2, 6 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. Claims 1 and 6 recites the limitation *the number of supply disabled* and claims 2 and 8 recites the limitation *the derived information*. There is insufficient antecedent basis for these limitations in the claims.
9. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for claiming both an apparatus and the method steps of using the apparatus. See *IPXL Holdings v. Amazon.com, Inc.*, 430 F.2d 1377, 1384, 77 USPQ2d 1140, 1145 (Fed. Cir. 2005). See also MPEP 2173.05(p)(11).

Claim Rejections - 35 USC § 101

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
11. Claim 6 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 6 is directed to a method, however, the steps and/or system components appear to be software per se, which constitutes a judicial exception in the form of an algorithm, and not an executable program tangibly embodied in a computer-readable medium.
12. Claim 6 is rejected under 35 U.S.C. 101 because the claimed invention is directed to neither a "process" nor a "machine," but rather embraces or overlaps two different statutory

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classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only. See *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990), at 1551. See also MPEP 2173.05(p)(11).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claims 1, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lidow (US 6,889,197 B2) in view of Grosvenor et al (US 7,216,086 B1), hereinafter "Grosvenor".

Examiner's Note: The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Claims 1, 6 and 7:

Lidow as shown discloses the following limitations:

- *comparing a pre-stored manufacture capacity (see at least column 27, lines: 43-55: "...stores and manages the data...") at said site with given demand at each time point, (see at least Figure 7 and column 16, lines 1-3: "...supply chain server 74 queries 144 whether the aggregated customer demand is greater than the supplier capacity", the supply chain server perform a comparison between the capacity and the demand);*
- *and if a supply disabled item exists, deriving the number of supply disabled items and a time point when a supply becomes disabled and storing the number of supply disabled items and the time point in a storage device as information representative of a supply disabled reason; (see at least Figure 8, which teaches a constrained supply planning routine where the customer demand is greater than the capacity, the system perform an iterative process in order to find a balance between demand and capacity and column 16, lines 11-51: "...if the demand is not greater than the capacity, supply chain server 74 branches to 330 in the Procurement Module. Otherwise, supply chain server 74 branches to customer intervention 158. In customer intervention 158, supply chain server 74 communicates with customers 72 to ascertain any possible customer flexibility (e.g. part substitutions, early or postponed delivery) to thereby produce a new customer demand.", the system contact all related customer/suppliers by notifying a supply disabled in the supply chain and then perform an allocate supply routine, "the parts which actually are available from suppliers ("constrained parts") are allocated equally among the demanding customers and the forecasts of the customers are altered accordingly.");*
- *displaying, on a display device as a list, planned demand at each of a plurality of proceeding periods, a corresponding supply plan proposal, said site where a supply disabled state occurs, and information representative of a quantity,(see at least*

Figure 24, which is a more detailed architecture of supply chain server and column 28, lines 1-10: "Planner support tool **586** allows Planners working for server **74** to manipulate forecast, demand and supply data. " this tool allow Planners to generate forecasts and find solutions when a supply disabled occurs since it " aggregates data extracted from ERP system **584** thereby facilitating flexible, configurable analysis methods, providing a wide range of reporting capabilities, providing a definition of exception conditions in the analysis process, ..." and mentioned in the limitation above, the supply chain server performs an allocate supply routine where forecast are updated);

Lidow does not disclose the following limitation, however Grosvenor as shown, does:

- *and displaying said site where the supply disabled state occurs and a supply disabled quantity in the period during which the supply disabled state occurs* (see at least Figure 3A and 3B, column 9 lines 12-66 and column 10 lines 1-37, which teaches a screen display showing an "alert title bar **312** presents the name of the current type of alerts that is displayed, as in FIG. 3A. Properties pane **356** presents values for specific properties of the alert, and the values correspond to those displayed in alert data **316** under field headings **314** in screen display **300** of FIG. 3A. Variance pane **358** presents information about the number of times similar alerts have occurred for the same supply chain partner. Configuration pane **360** presents information about variance configuration parameters (i.e. what percent variance constitutes an exception condition), and who has been configured to receive notification. Drilldown link pane **354** presents one or more links, selection of which causes the system to display even further detailed information relating to the alert" and see at least column 10-12, Table 1 "Available Drill-Down Views" and "Examples of Rules" for alerts examples.);

- *and receiving an external instruction of displaying the supply disabled quantity* (see at least column 34, Claim 13: "...instructions for periodically evaluating one or more existing alerts that are stored in an alerts table of the database...");
- *and displaying information identifying an item constituting the supply disabled quantity and information on a requested delivery time, a requested quantity and a supply quantity respectively of the item* (see at least column 16, lines 63-65 and column 17, teaches the "Expected Delivery Disconnect Rule" which function is "to identify differences between the Buy-Side Partner's PO delivery date and quantity and the Sell-Side Partner's Sales Order delivery date and quantity." This supply disabled (i.e. alert) is displayed as shown in Figure 3A and 3B.);

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the supply chain architecture of Lidow with the technique of providing a supply chain management system applying specific rules and alerts as taught by Grosvenor because by knowing the supply constraints (i.e. raw material shortage/surplus, machine/equipment downtimes, transportation issues, etc.) that affect the supply chain will help to "reduce the losses incurred by both customers and suppliers in the sale and distribution of products." (Lidow, see at least column 3, lines 17-19) and the supply chain will be more efficient and cost effective since the "alerts are communicated to the supply chain partners who are participating in a transaction to which the discrepancies relate. Each alert remains active until second information is received that represents a second supply chain event that resolves the alert" and this will "guarantee that appropriate action is taken in response to problems" (Grosvenor, column 2, lines 62-67 and 39, respectively);

Claims 2 and 8:

Lidow as shown discloses the following limitations:

- *wherein said supply-and-demand plan is automatically adjusted in accordance with the derived information on the item constituting the supply disabled state and the information of said site where the supply disabled state occurs* (see at least column

30, claim 28: "adjusting the customer forecasted demands when the replacement product is not available from the suppliers in the supply chain network.");

Furthermore, Lidow teaches when a supply disabled occurs the system automatically will adjust and notify all customers and suppliers "the parts which actually are available from suppliers ("constrained parts") are allocated equally among the demanding customers and the forecasts of the customers are altered accordingly."(Lidow, column 16, lines 48-51).

Claims 4 and 10:

Lidow as shown discloses the following limitations:

- *wherein automatic adjustment of said supply-and-demand receives a change instruction to change supply means for transporting said item from said site to another site and changes said supply means (see at least column 3, lines 31-36: "The supply chain server checks with the suppliers to determine whether the forecasts can be fulfilled by the suppliers. If the forecasts cannot be fulfilled by the suppliers, the supply chain server contacts customers and suppliers and attempts to either redistribute the customers' demands to different suppliers or request that customers alter their demands.");*

Furthermore, Lidow teaches "when supply issues have been resolved, the customers' demands are sent to the suppliers in groups so that the suppliers need to prepare a smaller number of large orders" (Lidow, column 3, lines 36-39).

16. Claims 3, 5, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lidow/Grosvenor in view of Hanazato et al (US 2004/0064350 A1), hereinafter "Hanazato".

Claims 3 and 9

The combination of Lidow/Grosvenor discloses the limitations of Claims 1 and 7, as shown above. The combination of Lidow/Grosvenor does not disclose the following limitation, but Hanazato however, as shown, does:

- *wherein automatic adjustment of said supply-and-demand performs delivery time adjustment* (see at least page 9, ¶ 0154: which teaches “when the demand forecast quantity is larger than the delivery schedule quantity, adjustment of the delivery schedule number is performed for each distributor (step 1104).”, ¶ 0155: which teaches that after the adjustments, “the finished product delivery schedule information is created” and ¶ 0162: which teaches modifications are made based on demand forecast, delivery schedule and finished product delivery schedule information to allows “adjustment of the production schedule, the delivery schedule, the sales schedule and the like of the distributor, the finished product manufacturer, and the part manufacturer.”);

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the supply chain architecture of Lidow with the technique of providing a supply chain management system applying specific rules and alerts as taught by Grosvenor with the supply chain management system and management program of Hanazato because will create an “effective production/supply system based on the number of orders, but also to determine the number of orders in accordance with actual demand, and to smoothly and immediately change an ordering/production/supply system even when actual demand is changed. In addition, all the companies participating in the supply chain can receive the benefit of efficient management by the supply chain system.” (Hanazato, page 10, ¶ 0164).

Claims 5 and 11:

The combination of Lidow/Grosvenor discloses the limitations of Claims 1 and 7, as shown above. The combination of Lidow/Grosvenor does not disclose the following limitation, but Hanazato however, as shown, does:

- *wherein automatic adjustment of said supply-and-demand receives a change instruction of changing a manufacture capacity assignment during a proceeding period at said site where the supply disabled state occurs and changes the manufacture capacity assignment during said period* (see at least page 10, ¶ 0162:

which teaches modifications are made based on demand forecast, delivery schedule and finished product delivery schedule information to allows "adjustment of the production schedule" which consider the manufacture capacity, "the delivery schedule, the sales schedule and the like of the distributor, the finished product manufacturer, and the part manufacturer.");

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the supply chain architecture of Lidow with the technique of providing a supply chain management system applying specific rules and alerts as taught by Grosvenor with the supply chain management system and management program of Hanazato as discussed above. Furthermore Hanazato discloses that information about variations on demand which affect manufacture capacity is obtained easily and "can create the demand forecast information, a more accurate supply chain can be constituted, and consequently, an increase or a reduction in demand can be more appropriately supported." (Hanazato, page 11, ¶ 0174).

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- Perry (US 6,947,903 B1) discloses a Method and System for Monitoring a Supply-Chain.

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Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Nadja Chong** whose telephone number is **570.270.3939**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **JAMES A. REAGAN** can be reached at **571.272.6710**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

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/Nadja Chong/Examiner, Art Unit 4143

10 January 2008

/James A. Reagan/Supervisory Patent Examiner, Art Unit 4143